

**PROJECTED WORKS.**—Advertisements have been issued for tenders by 24th inst., for taking down and rebuilding the South Stoneham Union Workhouse; by a date not specified, for finishing the carcasses of several houses in Newington, Surrey; by 15th inst. for building a shop and dwelling-house at Deptford; by 9th, for erecting a Savings' Bank in Cambridge; by 3rd June, for erecting a County Court-house at Belfast; by 7th June, for the erection of booking-offices and other buildings at the Wellington Railway Station, Leeds; by 11th inst., for taking down and rebuilding a house at Worcester; by a date not specified, for building a Corn Exchange at Worcester; by 15th inst., for the supply of an iron tower for a light-house at Cork; and by 9th inst., for gas pipes and fittings at the Hackney Union Workhouse.

**LABOURERS' COTTAGES.**—A correspondent of the *Art-Union Journal* has forwarded to the editor 104, to be awarded for the best design for a cottage suited to an agricultural labourer; to be erected in pairs, each containing a living-room, scullery, three bedrooms, and out-house, at a cost not exceeding 65*l.* each, or 130*l.* the two, including the necessary outlay for what are usually termed landlord's fixtures, such as stoves, shelves, &c. "In the arrangement of the plan, the first consideration will, of course, be given to internal comfort, arising from ventilation, draining, cleanliness, supply of water; and then as much external ornament should be introduced as so limited a sum would admit of. The designs submitted for competition must include an elevation of both sides, drawn to a scale of three-eighths of an inch to the foot; a sectional plan, quantities and specification; a description of the internal finishings and fittings proposed, with the requisite working drawings and detailed estimates; also a smaller plan, to be published in the journal if selected. Bricks are to be taken at 40*s.* per thousand, or brickwork at 12*s.* per rod." The designs must be submitted by the 1st of June to the editor of the journal in question, who, with two other gentlemen named by him, will award the prize.

**METROPOLITAN.**—The Board of Works have ordered the whole of the houses on the north side of Holborn-bridge, from Victoria-street to Field-lane, as also the whole of the east side of Field-lane itself, to be forthwith demolished, to widen and improve the thoroughfare. Government are also said to have determined on the speedy abolition of that monster nuisance, Smithfield market. On Wednesday week the demolition of the Borough Mint was commenced, by order of the South-west Improvement Commissioners, for the construction of a new street from St. George's Church to Southwark-bridge-road. A correspondent of the *Times* complains of the state of the public pathway in Mare-street, Hackney, in the centre of which are several wells covered over with wood, now so rotten, that one of them lately sank under the weight of one or two foot passengers, whose lives were nearly sacrificed. It is nevertheless said, that the Commissioners of Sewers of the Metropolitan Trust, though beseeched to cover them with stone and brick, "have merely placed on the top of this frightful well a few boards covered with gravel."

**THE INSTITUTION OF MECHANICAL ENGINEERS** held their usual quarterly meeting at Birmingham on Wednesday week. Mr. George Stephenson, president, in the chair, when papers were read on "the fitting-up of cylinders for locomotive engines," by Mr. Fothergill for Mr. Beyer, on "the formation of the teeth of the drivers of pin wheels," by Mr. Kintrae for Mr. F. Basforth, of Cambridge; on "Craddock's boiler and condenser," by Mr. Craddock, of Birmingham; on "a hydraulic starting apparatus," by Mr. Fothergill for Mr. Jackson; on a "patent safety buffer," by Mr. Buckle for Mr. Chesshire; and on "Banks's patent steel tyres," by Mr. Fothergill, who announced at the close that fifty-eight new members had been elected.

**THE INSTITUTE OF FINE ARTS.**—On Saturday last, a sessional meeting of the Institute was held, when Mr. T. F. Marshall read a very interesting and valuable paper on the Rise, Progress, and Decline of Italian Art, and the revival of art in the present day. We shall give some portions of it next week.

**THE ARCHITECTS' AND BUILDERS' PATENT SQUARE.**—This instrument, which is made on the same principle as Blundell's Agricultural Drainage Level, and is designed by Mr. Robert Blundell, surveyor, consists of an endless tube bent into a shape somewhat resembling an isosceles triangle, having an enlarged globular reservoir at the angle opposite the shortest side of the triangle, and partially filled with coloured spirits of wine: the tube is fixed in a frame having two straight sides, one at right angles to the other, and thus it forms a square. When the lower side of this square is placed on a horizontal line, the spirit in the tube indicates the same by its surface in the side against which the index is fixed rising to a point marked "Level;" and when the square is placed on any sloping surface, the spirit will indicate the angle of deviation from the horizontal: if the vertical side of the square be placed against any vertical line, the spirit will stand at "O" or "Level" on index; but if it be placed against any sloping line, the side of a column, or any sloping wall, the spirit will register the angle or deviation from the vertical line. It is intended for the use of builders, architects, surveyors, and the foremen of building works; and its superiority over the square and plumb-bob now in use appears to be considerable: it is much more accurate, because the plumb-bob is disturbed and rendered inaccurate by the slightest breath of air, and it can be used where the plumb-bob is useless, namely, in the open air in any weather. It will be found more expeditious in use, and this must be allowed to be a great advantage; and it also indicates, without any calculation or adjustment, the angle of deviation from the horizontal or vertical, and has a graduated scale affixed to the index, which shows the slopes of water courses, gutters, columns, or any lines deviating from the horizontal or vertical. It is very portable, and not at all liable to be injured. The spirit-tube is protected by being imbedded in the square, and no part left visible except a small portion at the index.

**MANUFACTURE OF WHITE LEAD.**—M. Versapuy has communicated to the Paris Academy of Sciences a notice of a method patented by him, of manufacturing white lead in closed vessels, whence it is extracted and mixed with water. It cannot, consequently, be diffused in dust through the atmosphere of the workshops; the workman neither touches nor breathes it; the only contact which occurs, with some precautions, is to put it in and take it out of the stove, and thus many of the dangerous consequences resulting from the present mode of making white lead are avoided.

**TO DISSOLVE INDIAN RUBBER.**—A correspondent asks how this can be effected. The usual and cheapest solvents of Indian rubber are naphtha or turpentine, and these will keep the Indian-rubber in solution so long as they are not exposed to the air; but, of course, being spirits, on exposure in small quantities, the spirit leaves the Indian rubber. These solutions are used to cement hose and pipes of leather, &c. If Indian-rubber be literally melted in an oven, at about 210 or 220 degrees of heat, it will not return to a solid state.

**MACHINE-MAKING MACHINERY.**—A very powerful, self-acting, slotting machine, for fashioning, polishing, and perfecting the cranks and cross-heads of the largest marine steam-engines, from the rough block out of the forge, is in course of erection for Messrs. Fulton and Neilson, of Lancefield Forge, near Glasgow. The single casting which forms the base of this machine weighs 28 tons, and took four months to mould. It was executed by Messrs. John Goldie and Co., of Hayfield Foundry. Two hundred men and six horses were required to move it; and fears were entertained that one of the bridges by which it crossed the Clyde would not be strong enough for the burden.

**THE ART-MAGICAL.**—Such "conjuring," to use a vulgar word, as that now exhibiting by Robert Houdin at the St. James's Theatre, is in truth a fine art, and teaches while it astounds,—teaches what seemingly impossible things may be achieved by practice and devotion to the end in view, and that what are called "our senses" are not always to be trusted.

**CITY COURT OF SEWERS AND THE HEALTH OF TOWNS ASSOCIATION.**—Some statements in a pamphlet recently circulated by the association, condemnatory of the City Court of Sewers, have caused the latter body to request the name of the party who furnished them, and have led to a long correspondence on the subject, at present, however, without result. The city commissioners are very indignant, and consider the statements false and unfounded.

**TO REMOVE GREASE SPOTS FROM DRAWINGS.**—If a little magnesia (it will be well to try both the calcined and the carbonate) is powdered over the grease spot, with a piece of clean thin blotting paper laid again on that, and a common laundry iron moderately passed a few times over it, the grease is often readily removed. If it does not come out at once, or if there is a very large spot, it will be well to shake off the magnesia which cakes with the heat, sprinkle a fresh quantity over it, and pursue the same plan.

**FROM HOBART TOWN** there were 130 subscribers to the Art-Union of London in the late distribution; from Sydney, 102; from New York, 87; and from Boston, U.S., the same number.

**THE ROYAL COLOSSEUM.**—Mr. Bradwell's new and splendid panorama, "Paris by Moonlight," will be opened on Monday, and if we mistake not, will prove a great hit. We shall speak of it next week.

**"EVERY MAN HIS OWN GAS MAKER."**—Sir: Some time since I read an account headed "Every man his own gas maker," but having no interest then in the subject, I did not engrave it on my memory. I now live in a village twelve miles from London, where (by inquiries I have made), from 100 to 120 burners would be used at the shops and public buildings, if gas were to be had. It is an improving neighbourhood: there are three churches and chapels; a market; and there is now being built a literary and scientific institution. By informing me how to be my own gas maker, you will oblige  
W. H.  
—Bexley Heath, Kent.

## TENDERS

For the complete external restoration of Ware Church, Hert: Mr. G. Godwin, architect, Wymington.

Cundy	£4,794
Carving Works, Finsbury	5,760
Patrick	5,745
Carter, Holloway (accepted)	5,977
Bishop	5,530

By a curious coincidence, the architect's estimate, on which the parish had acted, was exactly the mean of the five tenders.

For new baths, &c., at Middlesex Hospital. The specification prepared by Mr. Jencks; delivered to Mr. T. H. Wyatt, architect.

D. and E. Bailey	£464 16 6
Bramah and Prestage	537 0 0
G. Pitt, jun.	530 0 0
Cottam and Hallen	570 0 0
Benham and Sons	590 0 0
J. W. Smith	556 0 0
Jencks	554 15 0

For schools at St. John's, Hoxton.

Roycroft	£1,232
Hill	1,300
Burton	1,181
Glean	1,174
Ebbe	1,159
Mills	1,150
Haynes and Co.	1,145
Higgs	1,095
Knightley	1,095
Smith	1,055
Wallington	1,046
Pollock	1,040
Carter	967
Perry	995
Watson	995

For building a house at Newwood for Mr. James Franks: Mr. William Lambert, architect.

Trego	£1,192 0 0
Piper	1,175 0 0
Litchfield	1,154 0 0
Vaughan	1,068 0 0
Butler	1,045 0 0
Heath	981 10 0

For the Fever Hospital, Liverpool-road, Islington: Mr. C. Fowler, architect.

Lawrence	£12,743
Baker	13,450
Low	13,300
Cubitt and Co.	13,980
Grimdell	13,375
Piper	11,980

For building Aylesham Union: Mr. Donthorne, architect.

Wright and Cattermole, Norwich	£12,451
Lucas and Son, Lowestoft	16,199
Preties, Dereham	9,500
Robinson and Scisena (accepted)	9,450